

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Withdrawn)

2. (Withdrawn)

3. (Deleted)

4. (Withdrawn)

5. (Withdrawn)

6. (Withdrawn)

7. (Withdrawn)

8. (Currently Amended) A method of preparing a biological tissue, comprising:
seeding cells obtained from a tissue to be regenerated onto one or more scaffolds;
loading the scaffolds seeded with the tissue cells into a molding container with a predetermined form and size suitable for forming the biological tissue being produced;
adding a semi-permeable agent selected from among alginates, polysaccharides, chitosan, agar powder and gelatin and a cross-linking agent to the molding container, to form by the cross-linking thereof, and forming a semi-permeable membrane, permeable to nutrients, on an overall outer surface of each of the scaffolds loaded in the molding container to interconnect the scaffolds with each other through the semi-permeable membrane; and

introducing nutrients into the scaffolds interconnected with the semi-permeable membrane, cross-linking agent, thus proliferating the tissue cells to produce a biological tissue.

9. (Cancelled)

10. (Original) The method as set forth in claim 8, wherein the cross-linking agent is selected from among calcium chloride, tripolyphosphate and glutaraldehyde.

11. (Currently Amended) The method as set forth in claim 8, wherein the molding container is made of Teflon.

12. (Withdrawn)

13. (Cancelled)

14. (Added) A method of preparing a biological tissue, comprising:

- seeding cells obtained from a tissue to be regenerated onto a scaffold having an outer surface to produce a scaffold piece having a thickness of between about 1 to 3 mm;
- loading a plurality of said scaffold pieces into a molding container having a predetermined form and size and having a morphology of a tissue to be regenerated;
- adding a semi-permeable agent at a concentration between about from 0.5 to 5% and a cross-linking agent, selected from the group consisting of calcium chloride, tripolyphosphate and glutaraldehyde, at a concentration of between about 1 and 5%, to the molding container to interconnect the plurality of scaffold pieces to form a biodegradable polymer construct with a porous structure able to support migration and proliferation of cells, said porous structure having pores having pore size ranges from 200 to 350 .mu.m and micropores having a size of less than 2 .mu.m., thereby forming a dual porous structure;
- providing a reaction time of between about 1 and 20 minutes to allow said plurality of scaffold pieces to interconnect; and
- introducing nutrients into the biodegradable polymer construct to proliferate the cells and to permit interconnecting of the scaffold pieces into a desirable morphology of a biological tissue, wherein at least some of the cells employed in said step of seeding are stem cells and wherein the biological tissue prepared is suitable for one of the following: cartilage regeneration, bone tissue regeneration, neovascularization, nerve regeneration, regeneration of damaged tissues, regeneration of one of heart, lung and liver organs.